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Potential of Total Cycle Time Compression in Construction: Focus on Program Development and Design. — Ralph Barker, Paul Childerhouse, Mohamed Naim, Jan Masat, and Derek Wilson; 130(2), 177-87 (2004).
Case Study: Izmit Domestic and Industrial Water Supply Build–Operate–Transfer Project. — H. Ali Şentürk, Gökhan Yazici, and S. Burçin Kaplanoğlu; 130(3), 449-54 (2004).

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Benchmarking Studies on Construction Safety Management in China. — D. P. Fang, X. Y. Huang, and Jimmie Hinze; 130(3), 424-32 (2004).
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Practical Multifactor Approach to Evaluating Risk of Investment in Engineering Projects. — Abraham Warszawski and Rafael Sacks; 130(3), 357-67 (2004).
Awarding Construction Contracts on Multicriteria Basis in China. — L. Y. Shen, Q. M. Li, D. Drew, and Q. P. Shen; 130(3), 385-93 (2004).
Benchmarking Studies on Construction Safety Management in China. — D. P. Fang, X. Y. Huang, and Jimmie Hinze; 130(3), 424-32 (2004).
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Distributed Scheduling Model for Infrastructure Networks. — Tarek Hegazy, Ahmed Elhakeem, and Emad Elbeltagi; 130(2), 160-7 (2004).
Potential of Total Cycle Time Compression in Construction: Focus on Program Development and Design. — Ralph Barker, Paul Childerhouse, Mohamed Naim, Jan Masat, and Derek Wilson; 130(2), 177-87 (2004).
Process Model Perspectives on Management and Engineering Procedures in the Precast/Prestressed Concrete Industry. — R. Sacks, C. M. Eastman, and G. Lee; 130(2), 206-15 (2004).
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ASCE Journal of Construction Engineering and Management: Review of the Years 1983–2000. — Roberto Pietroforte and Tomi P. Stefani; 130(3), 440-8 (2004).
Implementing and Applying Six Sigma in Construction. — Low Sui Pheng and Mok Sze Hui; 130(4), 482-9 (2004).
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Process and Case Illustration of Construction Innovation. — Abd El Halim Omar Abd El Halim and Ralph Haas; 130(4), 570-5 (2004).
Four-Dimensional Visualization of Construction Scheduling and Site Utilization. — K. W. Chau, M. Anson, and J. P. Zhang; 130(4), 598-606 (2004).
Cumulative Effect of Project Changes for Electrical and Mechanical Construction. — Awad S. Hanna, Richard Camlic, Pehr A. Peterson, and Min-Jae Lee; 130(6), 762-71 (2004).
Development of a Practical Model of Partnering for Construction Projects. — Eddie W. L. Cheng and Heng Li; 130(6), 790-8 (2004).
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Construction Negotiation Online. — Sai On Cheung, Kenneth T. W. Yiu, and Henry Suen; 130(6), 844-52 (2004).
Fuzzy Clustering Model for Estimating Haulers' Travel Time. — Mohamed Marzouk and Osama Moselhi; 130(6), 878-86 (2004).
Symbiotic Crew Relationships and Labor Flow. — H. Randolph Thomas, Michael J. Horman, and Ubiraci Espinelli Lemes de Souza; 130(6), 908-17 (2004).
Impact of Labor Factors on Workflow. — Hyun-Soo Lee, Jung-Ho Yu, and Sun-Kuk Kim; 130(6), 918-23 (2004).
NJTxtr—A Computer Program Based on LASER to Monitor Asphalt Segregation. — Geoffrey M. Rowe, Jay N. Meegoda, Andris Jumikis, Mark J. Sharrock, Nishantha Bandara, and Chamil H. Hettiarachchi; 130(6), 924-34 (2004).

Construction materials

Long-Term Impact of Equipment Technology on Labor Productivity in the U.S. Construction Industry at the Activity Level. — Paul M. Goodrum and Carl T. Haas; 130(1), 124-33 (2004).
Potential Construction Applications for Thermoset Composite Scrap Material. — Jeffrey Stewart, R. Edward Minchin, Edward J. Jaselskis, Vinay Dayal, and Gary Smith; 130(2), 199-205 (2004).

Construction methods

Constructability Concepts in Kuala Selangor Cable-Stayed Bridge in Malaysia. — Mekdam A. Nima, Mohd R. Abdul-Kadir, Mohd S. Jaafar, and Riadh G. Alghulami; 130(3), 315-21 (2004).
Process and Case Illustration of Construction Innovation. — Abd El Halim Omar Abd El Halim and Ralph Haas; 130(4), 570-5 (2004).

Construction planning

Four-Dimensional Visualization of Construction Scheduling and Site Utilization. — K. W. Chau, M. Anson, and J. P. Zhang; 130(4), 598-606 (2004).

Construction site accidents

Fatalities in Trenching Operations—Analysis Using Models of Accident Causation. — Carlos A. Arboleda and Dulcy M. Abraham; 130(2), 273-80 (2004).
Dynamic Layout of Construction Temporary Facilities Considering Safety. — Emad Elbeltagi, Tarek Hegazy, and Adel Eldosouky; 130(4), 534-41 (2004).
Incident Causation Model for Improving Feedback of Safety Knowledge. — D. K. H. Chua and Y. M. Goh; 130(4), 542-51 (2004).
Falls through Roof and Floor Openings and Surfaces, Including Skylights: 1992–2000. — Thomas G. Bobick; 130(6), 895-907 (2004).

Construction sites

Mapping Approach for Examining Waste Management on Construction Sites. — L. Y. Shen, Vivian W. Y. Tam, C. M. Tam, and D. Drew; 130(4), 472-81 (2004).
Four-Dimensional Visualization of Construction Scheduling and Site Utilization. — K. W. Chau, M. Anson, and J. P. Zhang; 130(4), 598-606 (2004).

Contractors

Neural Network Model to Support International Market Entry Decisions. — Irem Dikmen and M. Talat Birgonul; 130(1), 59-66 (2004).
Method to Determine Minimum Contract Bid for $A+B+I/D$ Highway Projects. — Jin-Fang Shr, Bin Ran, and Chiu Wei Sung; 130(4), 509-16 (2004).
Risks in Chinese Construction Market—Contractors' Perspective. — Dongping Fang, Mingen Li, Patrick Sik-wah Fong, and Liyin Shen; 130(6), 853-61 (2004).
Risk Assessment Model of Tendering for Chinese Building Projects. — Dongping Fang, Patrick Sik-wah Fong, and Mingen Li; 130(6), 862-8 (2004).

Contracts

Reasons Underlying a Mandatory High Penalty Construction Contract Bonding System. — Xiaomei Deng, Shizhao Ding, and Qian Tian; 130(1), 67-74 (2004).
Setting Maximum Incentive for Incentive/

Disincentive Contracts for Highway Projects. — Jin-Fang Shr and Wei Tong Chen; 130(1), 84-93 (2004).
Analytical Model for Analyzing Construction Claims and Opportunistic Bidding. — S. Ping Ho and Liang Y. Liu; 130(1), 94-104 (2004).
Project Alliancing at National Museum of Australia—Collaborative Process. — Allan J. Hauck, Derek H. T. Walker, Keith D. Hampson, and Renaye J. Peters; 130(1), 143-52 (2004).
Awarding Construction Contracts on Multicriteria Basis in China. — L. Y. Shen, Q. M. Li, D. Drew, and Q. P. Shen; 130(3), 385-93 (2004).
Electronic-Based Procedure for Managing Unbalanced Bids. — Wei-Chih Wang; 130(3), 455-60 (2004).

Cooperation
Predicting Organizational Success within a Project-Based Joint Venture Alliance. — David N. Sillars and Roozbeh Kangari; 130(4), 500-8 (2004).

Corporate planning
Multicriteria Financial Portfolio Risk Management for International Projects. — Seung H. Han, James E. Diekmann, Young Lee, and Jong H. Ock; 130(3), 346-56 (2004).

Cost analysis
Electronic-Based Procedure for Managing Unbalanced Bids. — Wei-Chih Wang; 130(3), 455-60 (2004).

Cost control
Probabilistic Forecasting of Project Performance Using Stochastic S Curves. — Gabriel A. Barraza, W. Edward Back, and Fernando Mata; 130(1), 25-32 (2004).
Distributed Scheduling Model for Infrastructure Networks. — Tarek Hegazy, Ahmed Elhakeem, and Emad Elbeltagi; 130(2), 160-7 (2004).
Applying a Genetic Algorithm-Based Multiobjective Approach for Time-Cost Optimization. — Daisy X. M. Zheng, S. Thomas Ng, and Mohan M. Kumaraswamy; 130(2), 168-76 (2004).

Cost estimates
Falls through Roof and Floor Openings and Surfaces, Including Skylights: 1992–2000. — Thomas G. Bobick; 130(6), 895-907 (2004).

Costs
Flexible Model for Time/Cost Tradeoff Problem. — John Moussourakis and Cengiz Haksever; 130(3), 307-14 (2004).
Simulation as a Tool for Pile Productivity Assessment. — Tarek M. Zayed and Daniel W. Halpin; 130(3), 394-404 (2004).

Critical load
Structural Modeling and Design Considerations for Double-Layer Shoring Systems. — Jui-Lin Peng; 130(3), 368-77 (2004).

Critical path method
Flexible Model for Time/Cost Tradeoff Problem. — John Moussourakis and Cengiz Haksever; 130(3), 307-14 (2004).
Binary Resource Leveling Model: Activity Splitting Allowed. — Jaeho Son and Kris G. Mattila; 130(6), 887-94 (2004).

Data analysis
ASCE Journal of Construction Engineering and Management: Review of the Years 1983–2000. — Roberto Pietroforte and Tomi P. Stefani; 130(3), 440-8 (2004).
Process versus Data Oriented Techniques in Pile Construction Productivity Assessment. — Tarek M. Zayed and Daniel W. Halpin; 130(4), 490-9 (2004).

Data collection
Work Inputs and Related Economic Aspects of Multitier Shoring Towers. — Aviad Shapira; 130(1), 134-42 (2004).
Establish Concrete Placing Rates Using Quality Control Records from Hong Kong Building Construction Projects. — Ming Lu and Michael Anson; 130(2), 216-24 (2004).

Databases
Incident Causation Model for Improving Feedback of Safety Knowledge. — D. K. H. Chua and Y. M. Goh; 130(4), 542-51 (2004).

Decision making
Practical Multifactor Approach to Evaluating Risk of Investment in Engineering Projects. — Abraham Warszawski and Rafael Sacks; 130(3), 357-67 (2004).
Simulation as a Tool for Pile Productivity Assessment. — Tarek M. Zayed and Daniel W. Halpin; 130(3), 394-404 (2004).
Fuzzy Decision-Making Tool for Environmental Sustainable Buildings. — Seongwon Seo, Toshiya Aramaki, Yongwoo Hwang, and Keisuke Hanaki; 130(3), 415-23 (2004).
Selection of Concrete Pump Using the Superiority and Inferiority Ranking Method. — C. M. Tam, Thomas K. L. Tong, and Y. W. Wong; 130(6), 827-34 (2004).

Decision support systems
Cost-Benefit Model for the Construction of Tornado Shelters. — Timothy M. Whalen, Sajini Gopal, and Dulcy M. Abraham; 130(6), 772-9 (2004).
Decision Support System for Microtunneling Applications. — Tae Hwan Chung, Dulcy M. Abraham, and Sanjiv B. Gokhale; 130(6), 835-43 (2004).

Delivery
Project Alliancing at National Museum of Australia—Collaborative Process. — Allan J. Hauck, Derek H. T. Walker, Keith D. Hampson, and Renaye J. Peters; 130(1), 143-52 (2004).

Design
Impacts of Design/Information Technology on Project Outcomes. — Stephen R. Thomas, Sang-Hoon Lee, John D. Spencer, Richard L. Tucker, and Robert E. Chapman; 130(4), 586-97 (2004).

Design/build
Managing Constructibility Reviews to Reduce Highway Project Durations. — David N. Ford, Stuart D. Anderson, Andrew J. Damron, Rodrigo de Las Casas, Nevzat Gokmen, and Steven T. Kuennen; 130(1), 33-42 (2004).
Predicting Performance of Design-Build and Design-Bid-Build Projects. — Florence Yean Yng Ling, Swee Lean Chan, Edwin Chong, and Lee Ping Ee; 130(1), 75-83 (2004).
Work Structuring to Achieve Integrated Product–Process Design. — Cynthia C. Y. Tsao, Iris D. Tommelein, Eric S. Swanlund, and Gregory A. Howell; 130(6), 780-9 (2004).

Dispute resolution
Construction Negotiation Online. — Sai On Cheung, Kenneth T. W. Yiu, and Henry Suen; 130(6), 844-52 (2004).

Dynamic programming
Decision Support Model for the Allocation of Resources in Rehabilitation Projects. — Igal M. Shohet and Eldad Perelstein; 130(2), 249-57 (2004).

Earthmoving
Multiobjective Optimization of Earthmoving Operations. — Mohamed Marzouk and Osama Moselhi; 130(1), 105-13 (2004).
Fuzzy Clustering Model for Estimating Haulers' Travel Time. — Mohamed Marzouk and Osama Moselhi; 130(6), 878-86 (2004).

Economic analysis
Reasons Underlying a Mandatory High Penalty Construction Contract Bonding System. — Xiaomei Deng, Shizhao Ding, and Qian Tian; 130(1), 67-74 (2004).

Economic factors
Practical Multifactor Approach to Evaluating Risk of Investment in Engineering Projects. — Abraham Warszawski and Rafael Sacks; 130(3), 357-67 (2004).
Decision Support System for Microtunneling Applications. — Tae Hwan Chung, Dulcy M. Abraham, and Sanjiv B. Gokhale; 130(6), 835-43 (2004).

Electrical equipment
Cumulative Effect of Project Changes for Electrical and Mechanical Construction. — Awad S. Hanna, Richard Camlic, Pehr A. Peterson, and Min-Jae Lee; 130(6), 762-71 (2004).

Employees
Work and Family Sources of Burnout in the Australian Engineering Profession: Comparison of Respondents in Dual- and Single-Earner Couples, Parents, and Nonparents. — Helen Lingard; 130(2), 290-8 (2004).
Hispanic and Non-Hispanic Wage Differentials: Implications for United States Construction Industry. — Paul M. Goodrum; 130(4), 552-9 (2004).

Engineering firms
Environmental Management Systems and ISO 14001 Certification for Construction Firms. — Gwen Christini, Michael Fetsko, and Chris Hendrickson; 130(3), 330-6 (2004).

Environmental impacts
Environmental Management Systems and ISO 14001 Certification for Construction Firms. — Gwen Christini, Michael Fetsko, and Chris Hendrickson; 130(3), 330-6 (2004).

Environmental issues
Fuzzy Decision-Making Tool for Environmental Sustainable Buildings. — Seongwon Seo, Toshiya Aramaki, Yongwoo Hwang, and Keisuke Hanaki; 130(3), 415-23 (2004).

Errors
Position Error Modeling for Automated Construction Manipulators. — Yong-Kwon Cho, Carl T. Haas, S. V. Sreenivasan, and Katherine Liapi; 130(1), 50-8 (2004).

Estimation
Project Buyout. — Darin C. Zwick and Kevin R. Miller; 130(2), 245-8 (2004).

Fabrication
Work Structuring to Achieve Integrated Product–Process Design. — Cynthia C. Y. Tsao, Iris D. Tommelein, Eric S. Swanlund, and Gregory A. Howell; 130(6), 780-9 (2004).

Factor analysis
Exploring Critical Success Factors for Partnering in Construction Projects. — Albert P. C. Chan, Daniel W. M. Chan, Y. H. Chiang, B. S. Tang, Edwin H. W. Chan, and Kathy S. K. Ho; 130(2), 188-98 (2004).

Falsework
Structural Modeling and Design Considerations for Double-Layer Shoring Systems. — Jui-Lin Peng; 130(3), 368-77 (2004).

Fatalities
Falls through Roof and Floor Openings and Surfaces, Including Skylights: 1992–2000. — Thomas G. Bobick; 130(6), 895-907 (2004).

Feedback loops
Incident Causation Model for Improving Feedback of Safety Knowledge. — D. K. H. Chua and Y. M. Goh; 130(4), 542-51 (2004).

Financial factors
Project Buyout. — Darin C. Zwick and Kevin R. Miller; 130(2), 245-8 (2004).
Empirical Study of Strategic Performance of Global Construction Firms. — Charles Y. J. Cheah, Michael J. Garvin, and John B. Miller; 130(6), 808-17 (2004).

Financial management
Multicriteria Financial Portfolio Risk Management for International Projects. — Seung H. Han, James E. Diekmann, Young Lee, and Jong H. Ock; 130(3), 346-56 (2004).

Financing
Concessionaire Selection: Methods and Criteria. — Xueqing Zhang; 130(2), 235-44 (2004).

Forecasting
Probabilistic Forecasting of Project Performance Using Stochastic S Curves. — Gabriel A. Barraza, W. Edward Back, and Fernando Mata; 130(1), 25-32 (2004).

Foreign projects
Neural Network Model to Support International Market Entry Decisions. — Irem Dikmen and M. Talat Birgonul; 130(1), 59-66 (2004).

Formwork, construction
Work Inputs and Related Economic Aspects of Multitier Shoring Towers. — Aviad Shapira; 130(1), 134-42 (2004).

Fuzzy sets
Where Do We Stand with Fuzzy Project Scheduling? — Pierre Bonnal, Didier Gourc, and Germain Lacoste; 130(1), 114-23 (2004).
Risk Assessment Methodology for Underground Construction Projects. — Hyun-Ho Choi, Hyo-Nam Cho, and J. W. Seo; 130(2), 258-72 (2004).
Quantitative Assessment for Piles Productivity Factors. — Tarek M. Zayed and Daniel W. Halpin; 130(3), 405-14 (2004).
Fuzzy Decision-Making Tool for Environmental Sustainable Buildings. — Seongwon Seo, Toshiya Aramaki, Yongwoo Hwang, and Keisuke Hanaki; 130(3), 415-23 (2004).
Fuzzy Clustering Model for Estimating Haulers' Travel Time. — Mohamed Marzouk and Osama Moselhi; 130(6), 878-86 (2004).

Geophysical surveys
Evaluation of an Emerging Market in Subsurface Utility Engineering. — Hyung Seok Jeong, Dulcy M. Abraham, and Jeffrey J. Lew; 130(2), 225-34 (2004).

Government agencies
Module-Based Construction Schedule Administration for Public Infrastructure Agencies. — R. J. Dzeng, W. C. Wang, and H. P. Tserng; 130(1), 5-14 (2004).

Graphic methods
Four-Dimensional Visualization of Construction Scheduling and Site Utilization. — K. W. Chau, M. Anson, and J. P. Zhang; 130(4), 598-606 (2004).

Highway construction
Managing Constructibility Reviews to Reduce Highway Project Durations. — David N. Ford, Stuart D. Anderson, Andrew J. Damron, Rodrigo de Las Casas, Nevzat Gokmen, and Steven T. Kuennen; 130(1), 33-42 (2004).
Setting Maximum Incentive for Incentive/Disincentive Contracts for Highway Projects. — Jin-Fang Shr and Wei Tong Chen; 130(1), 84-93 (2004).
Method to Determine Minimum Contract Bid for $A+B+I/D$ Highway Projects. — Jin-Fang Shr, Bin Ran, and Chiu Wei Sung; 130(4), 509-16 (2004).

Highway design
Constructability Concepts in Kuala Selangor Cable-Stayed Bridge in Malaysia. — Mekdam A. Nima, Mohd R. Abdul-Kadir, Mohd S. Jaafar, and Riadh G. Alghulami; 130(3), 315-21 (2004).

History
Analysis of Trends in Construction Research: 1985–2002. — Osama Abudayyeh, Amber Dibert-DeYoung, and Edward Jaselskis; 130(3), 433-9 (2004).

Hong Kong
Exploring Critical Success Factors for Partnering in Construction Projects. — Albert P. C. Chan, Daniel W. M. Chan, Y. H. Chiang, B. S. Tang, Edwin H. W. Chan, and Kathy S. K. Ho; 130(2), 188-98 (2004).
Establish Concrete Placing Rates Using Quality Control Records from Hong Kong Building Construction Projects. — Ming Lu and Michael Anson; 130(2), 216-24 (2004).
Mapping Approach for Examining Waste Management on Construction Sites. — L. Y. Shen, Vivian W. Y. Tam, C. M. Tam, and D. Drew; 130(4), 472-81 (2004).
Selection of Concrete Pump Using the Superiority and Inferiority Ranking Method. — C. M. Tam, Thomas K. L. Tong, and Y. W. Wong; 130(6), 827-34 (2004).

Hybrid methods
Hybrid Life-Cycle Inventory for Road Construction and Use. — Graham J. Treloar, Peter E. D. Love, and Robert H. Crawford; 130(1), 43-9 (2004).

Information management
Evaluation of an Emerging Market in Subsurface Utility Engineering. — Hyung Seok Jeong, Dulcy M. Abraham, and Jeffrey J. Lew; 130(2), 225-34 (2004).
Capturing Safety Knowledge Using Design-for-Safety-Process Tool. — B. H. W. Hadikusumo and Steve Rowlinson; 130(2), 281-9 (2004).
Prototype Web-Based Construction Project Management System. — Swee-Lean Chan and Nga-Na Leung; 130(6), 935-43 (2004).

Information technology (IT)
Process Model Perspectives on Management and Engineering Procedures in the Precast/Prestressed Concrete Industry. — R. Sacks, C. M. Eastman, and G. Lee; 130(2), 206-15 (2004).
Impacts of Design/Information Technology on Project Outcomes. — Stephen R. Thomas, Sang-Hoon Lee, John D. Spencer, Richard L. Tucker, and Robert E. Chapman; 130(4), 586-97 (2004).
Construction Negotiation Online. — Sai On Cheung, Kenneth T. W. Yiu, and Henry Suen; 130(6), 844-52 (2004).

Infrastructure
Module-Based Construction Schedule Administration for Public Infrastructure Agencies. — R. J. Dzeng, W. C. Wang, and H. P. Tserng; 130(1), 5-14 (2004).
Distributed Scheduling Model for Infrastructure Networks. — Tarek Hegazy, Ahmed Elhakeem, and Emad Elbeltagi; 130(2), 160-7 (2004).
Concessionaire Selection: Methods and Criteria. — Xueqing Zhang; 130(2), 235-44 (2004).

Injuries
Falls through Roof and Floor Openings and Surfaces, Including Skylights: 1992–2000. — Thomas G. Bobick; 130(6), 895-907 (2004).

Innovation
Managing Drivers of Innovation in Construction Networks. — Bart A. G. Bossink; 130(3), 337-45 (2004).
Process and Case Illustration of Construction Innovation. — Abd El Halim Omar Abd El Halim and Ralph Haas; 130(4), 570-5 (2004).

Installation
Work Structuring to Achieve Integrated Product–Process Design. — Cynthia C. Y. Tsao, Iris D. Tommelein, Eric S. Swanlund, and Gregory A. Howell; 130(6), 780-9 (2004).

Insurance
Transportation Agency Use of Owner-Controlled Insurance Programs. — Cliff J. Schexnayder, Sandra L. Weber, and Scott A. David; 130(4), 517-24 (2004).

International development
Multicriteria Financial Portfolio Risk Management for International Projects. — Seung H. Han, James E. Diekmann, Young Lee, and Jong H. Ock; 130(3), 346-56 (2004).

Internet
Construction Negotiation Online. — Sai On Cheung, Kenneth T. W. Yiu, and Henry Suen; 130(6), 844-52 (2004).
Prototype Web-Based Construction Project Management System. — Swee-Lean Chan and Nga-Na Leung; 130(6), 935-43 (2004).

Inventories
Hybrid Life-Cycle Inventory for Road Construction and Use. — Graham J. Treloar, Peter E. D. Love, and Robert H. Crawford; 130(1), 43-9 (2004).
Strategic Positioning of Inventory to Match Demand in a Capital Projects Supply Chain. — Kenneth D. Walsh, James C. Hershauer, Iris D. Tommelein, and Tobi A. Walsh; 130(6), 818-26 (2004).

Investments
Practical Multifactor Approach to Evaluating Risk of Investment in Engineering Projects. — Abraham Warszawski and Rafael Sacks; 130(3), 357-67 (2004).

Joint ventures
Predicting Organizational Success within a Project-Based Joint Venture Alliance. — David N. Sillars and Roozbeh Kangari; 130(4), 500-8 (2004).
Kinematics
Position Error Modeling for Automated Construction Manipulators. — Yong-Kwon Cho, Carl T. Haas, S. V. Sreenivasan, and Katherine Liapi; 130(1), 50-8 (2004).
Labor
Symbiotic Crew Relationships and Labor Flow. — H. Randolph Thomas, Michael J. Horman, and Ubiraci Espinelli Lemes de Souza; 130(6), 908-17 (2004).
Impact of Labor Factors on Workflow. — Hyun-Soo Lee, Jung-Ho Yu, and Sun-Kuk Kim; 130(6), 918-23 (2004).
Lean construction
Work Structuring to Achieve Integrated Product–Process Design. — Cynthia C. Y. Tsao, Iris D. Tommelein, Eric S. Swanlund, and Gregory A. Howell; 130(6), 780-9 (2004).
Leveling
Binary Resource Leveling Model: Activity Splitting Allowed. — Jaeho Son and Kris G. Mattila; 130(6), 887-94 (2004).
Life cycles
Hybrid Life-Cycle Inventory for Road Construction and Use. — Graham J. Treloar, Peter E. D. Love, and Robert H. Crawford; 130(1), 43-9 (2004).
Linear programming
Resource Allocation for Concrete Batch Plant Operation: Case Study. — Tarek M. Zayed and Issam Minkarah; 130(4), 560-9 (2004).
Binary Resource Leveling Model: Activity Splitting Allowed. — Jaeho Son and Kris G. Mattila; 130(6), 887-94 (2004).
Litigation
Analytical Model for Analyzing Construction Claims and Opportunistic Bidding. — S. Ping Ho and Liang Y. Liu; 130(1), 94-104 (2004).
Maintenance
Decision Support Model for the Allocation of Resources in Rehabilitation Projects. — Igal M. Shohet and Eldad Perelstein; 130(2), 249-57 (2004).
Malaysia
Constructability Concepts in Kuala Selangor Cable-Stayed Bridge in Malaysia. — Mekdam A. Nima, Mohd R. Abdul-Kadir, Mohd S. Jaafar, and Riadh G. Alghulami; 130(3), 315-21 (2004).
Management methods
Empirical Study of Strategic Performance of Global Construction Firms. — Charles Y. J. Cheah, Michael J. Garvin, and John B. Miller; 130(6), 808-17 (2004).
Manufacturing facilities
Resource Allocation for Concrete Batch Plant Operation: Case Study. — Tarek M. Zayed and Issam Minkarah; 130(4), 560-9 (2004).
Mapping
Mapping Approach for Examining Waste Management on Construction Sites. — L. Y. Shen, Vivian W. Y. Tam, C. M. Tam, and D. Drew; 130(4), 472-81 (2004).
Marketing
Predicting Organizational Success within a Project-Based Joint Venture Alliance. — David N. Sillars and Roozbeh Kangari; 130(4), 500-8 (2004).
Mechanical system, structural
Cumulative Effect of Project Changes for Electrical and Mechanical Construction. — Awad S. Hanna, Richard Camlic, Pehr A. Peterson, and Min-Jae Lee; 130(6), 762-71 (2004).
Methodology
Factorial Method for Performance Assessment of Building Facades. — M. Y. L. Chew and Nayanthara De Silva; 130(4), 525-33 (2004).
Microtunneling
Decision Support System for Microtunneling Applications. — Tae Hwan Chung, Dulcy M. Abraham, and Sanjiv B. Gokhale; 130(6), 835-43 (2004).
Minority groups
Hispanic and Non-Hispanic Wage Differentials: Implications for United States Construction Industry. — Paul M. Goodrum; 130(4), 552-9 (2004).
Mixing
Establish Concrete Placing Rates Using Quality Control Records from Hong Kong Building Construction Projects. — Ming Lu and Michael Anson; 130(2), 216-24 (2004).
Models
Position Error Modeling for Automated Construction Manipulators. — Yong-Kwon Cho, Carl T. Haas, S. V. Sreenivasan, and Katherine Liapi; 130(1), 50-8 (2004).
Predicting Performance of Design-Build and Design-Bid-Build Projects. — Florence Yean Yng Ling, Swee Lean Chan, Edwin Chong, and Lee Ping Ee; 130(1), 75-83 (2004).
Flexible Model for Time/Cost Tradeoff Problem. — John Moussourakis and Cengiz Haksever; 130(3), 307-14 (2004).
Simulation as a Tool for Pile Productivity Assessment. — Tarek M. Zayed and Daniel W. Halpin; 130(3), 394-404 (2004).
Incident Causation Model for Improving Feedback of Safety Knowledge. — D. K. H. Chua and Y. M. Goh; 130(4), 542-51 (2004).
Development of a Practical Model of Partnering for Construction Projects. — Eddie W. L. Cheng and Heng Li; 130(6), 790-8 (2004).
Fuzzy Clustering Model for Estimating Haulers' Travel Time. — Mohamed Marzouk and Osama Moselhi; 130(6), 878-86 (2004).
Binary Resource Leveling Model: Activity Splitting Allowed. — Jaeho Son and Kris G. Mattila; 130(6), 887-94 (2004).
Prototype Web-Based Construction Project Management System. — Swee-Lean Chan and Nga-Na Leung; 130(6), 935-43 (2004).
Monte Carlo method
Probabilistic Forecasting of Project Performance Using Stochastic S Curves. — Gabriel A. Barraza, W. Edward Back, and Fernando Mata; 130(1), 25-32 (2004).
Multiple objective analysis
Multiobjective Optimization of Earthmoving Operations. — Mohamed Marzouk and Osama Moselhi; 130(1), 105-13 (2004).
Multiple regressions
Exploring Critical Success Factors for Partnering in Construction Projects. — Albert P. C. Chan, Daniel W. M. Chan, Y. H. Chiang, B. S. Tang, Edwin H. W. Chan, and Kathy S. K. Ho; 130(2), 188-98 (2004).
Negotiations
Construction Negotiation Online. — Sai On Cheung, Kenneth T. W. Yiu, and Henry Suen; 130(6), 844-52 (2004).
Netherlands
Managing Drivers of Innovation in Construction Networks. — Bart A. G. Bossink; 130(3), 337-45 (2004).
Neural networks
Neural Network Model to Support International Market Entry Decisions. — Irem Dikmen and M. Talat Birgonul; 130(1), 59-66 (2004).
Process versus Data Oriented Techniques in Pile Construction Productivity Assessment. — Tarek M. Zayed and Daniel W. Halpin; 130(4), 490-9 (2004).
New Jersey
NJTxtr—A Computer Program Based on LASER to Monitor Asphalt Segregation. — Geoffrey M. Rowe, Jay N. Meegoda, Andris Jumikis, Mark J. Sharrock, Nishantha Bandara, and Chamil H. Hettiarachchi; 130(6), 924-34 (2004).
Occupational safety
Capturing Safety Knowledge Using Design-for-Safety-Process Tool. — B. H. W. Hadikusumo and Steve Rowlinson; 130(2), 281-9 (2004).
Falls through Roof and Floor Openings and Surfaces, Including Skylights: 1992–2000. — Thomas G. Bobick; 130(6), 895-907 (2004).
Optimization
Multiobjective Optimization of Earthmoving Operations. — Mohamed Marzouk and Osama Moselhi; 130(1), 105-13 (2004).
Distributed Scheduling Model for Infrastructure Networks. — Tarek Hegazy, Ahmed Elhakeem, and Emad Elbeltagi; 130(2), 160-7 (2004).
Applying a Genetic Algorithm-Based Multiobjective Approach for Time-Cost Optimization. — Daisy X. M. Zheng, S. Thomas Ng, and Mohan M. Kumaraswamy; 130(2), 168-76 (2004).
Resource Allocation for Concrete Batch Plant Operation: Case Study. — Tarek M. Zayed and Issam Minkarah; 130(4), 560-9 (2004).
Binary Resource Leveling Model: Activity Splitting Allowed. — Jaeho Son and Kris G. Mattila; 130(6), 887-94 (2004).
Organization theory
Predicting Organizational Success within a Project-Based Joint Venture Alliance. — David N. Sillars and Roozbeh Kangari; 130(4), 500-8 (2004).
Predicting Construction Company Decline. — Almula Koksal and David Arditi; 130(6), 799-807 (2004).
Owners
Project Buyout. — Darin C. Zwick and Kevin R. Miller; 130(2), 245-8 (2004).
Partnerships
Project Alliancing at National Museum of Australia—Collaborative Process. — Allan J. Hauck, Derek H. T. Walker, Keith D. Hampson, and Renaye J. Peters; 130(1), 143-52 (2004).
Exploring Critical Success Factors for Partnering in Construction Projects. — Albert P. C. Chan, Daniel W. M. Chan, Y. H. Chiang, B. S. Tang, Edwin H. W. Chan, and Kathy S. K. Ho; 130(2), 188-98 (2004).
Concessionaire Selection: Methods and Criteria. — Xueqing Zhang; 130(2), 235-44 (2004).
Development of a Practical Model of Partnering for

Construction Projects. — Eddie W. L. Cheng and Heng Li; 130(6), 790-8 (2004).

Pavements

Process and Case Illustration of Construction Innovation. — Abd El Halim Omar Abd El Halim and Ralph Haas; 130(4), 570-5 (2004).

Performance

Impacts of Design/Information Technology on Project Outcomes. — Stephen R. Thomas, Sang-Hoon Lee, John D. Spencer, Richard L. Tucker, and Robert E. Chapman; 130(4), 586-97 (2004).

Performance evaluation

Probabilistic Forecasting of Project Performance Using Stochastic S Curves. — Gabriel A. Barraza, W. Edward Back, and Fernando Mata; 130(1), 25-32 (2004).

Predicting Performance of Design-Build and Design-Bid-Build Projects. — Florence Yean Yng Ling, Swee Lean Chan, Edwin Chong, and Lee Ping Ee; 130(1), 75-83 (2004).

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Management of Radon in Tunnel Drilling. — Keith Y. K. Li and Andy T. Chan; 130(5), 699-707 (2004).

Chan, Daniel W. M.
Exploring Critical Success Factors for Partnering in Construction Projects. — Albert P. C. Chan, Daniel W. M. Chan, Y. H. Chiang, B. S. Tang, Edwin H. W. Chan, and Kathy S. K. Ho; 130(2), 188-98 (2004).

Chan, Edwin H. W.
Exploring Critical Success Factors for Partnering in Construction Projects. — Albert P. C. Chan, Daniel W. M. Chan, Y. H. Chiang, B. S. Tang, Edwin H. W. Chan, and Kathy S. K. Ho; 130(2), 188-98 (2004).

Chan, Swee Lean
Predicting Performance of Design-Build and Design-Bid-Build Projects. — Florence Yean Yng Ling, Swee Lean Chan, Edwin Chong, and Lee Ping Ee; 130(1), 75-83 (2004).

Chan, Swee-Lean
Prototype Web-Based Construction Project Management System. — Swee-Lean Chan and Nga-Na Leung; 130(6), 935-43 (2004).

Chapman, Robert E.
Impacts of Design/Information Technology on Project Outcomes. — Stephen R. Thomas, Sang-Hoon Lee, John D. Spencer, Richard L. Tucker, and Robert E. Chapman; 130(4), 586-97 (2004).

Chau, K. W.
Four-Dimensional Visualization of Construction Scheduling and Site Utilization. — K. W. Chau, M. Anson, and J. P. Zhang; 130(4), 598-606 (2004).

Cheah, Charles Y. J.
Empirical Study of Strategic Performance of Global Construction Firms. — Charles Y. J. Cheah, Michael J. Garvin, and John B. Miller; 130(6), 808-17 (2004).

Chen, Wei Tong
Setting Maximum Incentive for Incentive/Disincentive Contracts for Highway Projects. — Jin-Fang Shr and Wei Tong Chen; 130(1), 84-93 (2004).

Cheng, Eddie W. L.
Development of a Practical Model of Partnering for Construction Projects. — Eddie W. L. Cheng and Heng Li; 130(6), 790-8 (2004).

Cheung, Sai On
Construction Negotiation Online. — Sai On Cheung, Kenneth T. W. Yiu, and Henry Suen; 130(6), 844-52 (2004).

Chew, M. Y. L.
Factorial Method for Performance Assessment of Building Facades. — M. Y. L. Chew and Nayanthara De Silva; 130(4), 525-33 (2004).

Chiang, Y. H.
Exploring Critical Success Factors for Partnering in Construction Projects. — Albert P. C. Chan, Daniel W. M. Chan, Y. H. Chiang, B. S. Tang, Edwin H. W. Chan, and Kathy S. K. Ho; 130(2), 188-98 (2004).

Childerhouse, Paul
Potential of Total Cycle Time Compression in Construction: Focus on Program Development and Design. — Ralph Barker, Paul Childerhouse, Mohamed Naim, Jan Masat, and Derek Wilson; 130(2), 177-87 (2004).

Chinowsky, Paul S.
Construction Engineering Management Educators: History and Deteriorating Community. — Paul S. Chinowsky and James E. Diekmann; 130(5), 751-8 (2004).

Cho, Hyo-Nam
Risk Assessment Methodology for Underground Construction Projects. — Hyun-Ho Choi, Hyo-Nam Cho, and J. W. Seo; 130(2), 258-72 (2004).

Cho, Yong-Kwon
Position Error Modeling for Automated Construction Manipulators. — Yong-Kwon Cho, Carl T. Haas, S. V. Sreenivasan, and Katherine Liapi; 130(1), 50-8 (2004).

Choi, Hyun-Ho
Risk Assessment Methodology for Underground Construction Projects. — Hyun-Ho Choi, Hyo-Nam Cho, and J. W. Seo; 130(2), 258-72 (2004).

Chong, Edwin
Predicting Performance of Design-Build and Design-Bid-Build Projects. — Florence Yean Yng Ling, Swee Lean Chan, Edwin Chong, and Lee Ping Ee; 130(1), 75-83 (2004).

Christini, Gwen
Environmental Management Systems and ISO 14001 Certification for Construction Firms. — Gwen Christini, Michael Fetsko, and Chris Hendrickson; 130(3), 330-6 (2004).

Chua, D. K. H.
Incident Causation Model for Improving Feedback of Safety Knowledge. — D. K. H. Chua and Y. M. Goh; 130(4), 542-51 (2004).

Chung, Tae Hwan
Decision Support System for Microtunneling Applications. — Tae Hwan Chung, Dulcy M. Abraham, and Sanjiv B. Gokhale; 130(6), 835-43 (2004).

Crawford, Robert H.
Hybrid Life-Cycle Inventory for Road Construction and Use. — Graham J. Treloar, Peter E. D. Love, and Robert H. Crawford; 130(1), 43-9 (2004).

Damron, Andrew J.
Managing Constructibility Reviews to Reduce Highway Project Durations. — David N. Ford, Stuart D. Anderson, Andrew J. Damron, Rodrigo de Las Casas, Nevzat Gokmen, and Steven T. Kuennen; 130(1), 33-42 (2004).

David, Scott A.
Transportation Agency Use of Owner-Controlled Insurance Programs. — Cliff J. Schexnayder, Sandra L. Weber, and Scott A. David; 130(4), 517-24 (2004).

Dayal, Vinay
Potential Construction Applications for Thermoset Composite Scrap Material. — Jeffrey Stewart, R. Edward Minchin, Edward J. Jaselskis, Vinay Dayal, and Gary Smith; 130(2), 199-205 (2004).

de Las Casas, Rodrigo
Managing Constructibility Reviews to Reduce Highway Project Durations. — David N. Ford, Stuart D. Anderson, Andrew J. Damron, Rodrigo de Las Casas, Nevzat Gokmen, and Steven T. Kuennen; 130(1), 33-42 (2004).

Deng, Xiaomei
Reasons Underlying a Mandatory High Penalty Construction Contract Bonding System. — Xiaomei Deng, Shizhao Ding, and Qian Tian; 130(1), 67-74 (2004).

De Silva, Nayanthara
Factorial Method for Performance Assessment of Building Facades. — M. Y. L. Chew and Nayanthara De Silva; 130(4), 525-33 (2004).

de Souza, Ubiraci Espinelli Lemes
Closure to "Reducing Variability to Improve Performance as a Lean Construction Principle" by H. Randolph Thomas, Michael J. Horman, Ubiraci Espinelli Lemes de Souza, and Ivica Završki. — H. Randolph Thomas, Michael J. Horman, Ubiraci Espinelli Lemes de Souza, and Ivica Završki; 130(2), 300-1 (2004).
Symbiotic Crew Relationships and Labor Flow. — H. Randolph Thomas, Michael J. Horman, and Ubiraci Espinelli Lemes de Souza; 130(6), 908-17 (2004).

Dibert-DeYoung, Amber
Analysis of Trends in Construction Research: 1985–2002. — Osama Abudayyeh, Amber Dibert-DeYoung, and Edward Jaselskis; 130(3), 433-9 (2004).

Diekmann, James E.
Multicriteria Financial Portfolio Risk Management for International Projects. — Seung H. Han, James E. Diekmann, Young Lee, and Jong H. Ock; 130(3), 346-56 (2004).
Construction Engineering Management Educators: History and Deteriorating Community. — Paul S. Chinowsky and James E. Diekmann; 130(5), 751-8 (2004).

Dikmen, Irem
Neural Network Model to Support International Market Entry Decisions. — Irem Dikmen and M. Talat Birgonul; 130(1), 59-66 (2004).

Ding, Shizhao
Reasons Underlying a Mandatory High Penalty Construction Contract Bonding System. — Xiaomei Deng, Shizhao Ding, and Qian Tian; 130(1), 67-74 (2004).

Drew, D.
Awarding Construction Contracts on Multicriteria Basis in China. — L. Y. Shen, Q. M. Li, D. Drew, and Q. P. Shen; 130(3), 385-93 (2004).
Mapping Approach for Examining Waste Management on Construction Sites. — L. Y. Shen, Vivian W. Y. Tam, C. M. Tam, and D. Drew; 130(4), 472-81 (2004).

Dzeng, R. J.
Module-Based Construction Schedule Administration for Public Infrastructure Agencies. — R. J. Dzeng, W. C. Wang, and H. P. Tserng; 130(1), 5-14 (2004).

Eastman, C. M.
Process Model Perspectives on Management and Engineering Procedures in the Precast/Prestressed Concrete Industry. — R. Sacks, C. M. Eastman, and G. Lee; 130(2), 206-15 (2004).

Ee, Lee Ping
Predicting Performance of Design-Build and Design-Bid-Build Projects. — Florence Yean Yng Ling, Swee Lean Chan, Edwin Chong, and Lee Ping Ee; 130(1), 75-83 (2004).

Elazouni, Ashraf M.
Finance-Based Scheduling of Construction Projects Using Integer Programming. — Ashraf M. Elazouni and Ahmed A. Gab-Allah; 130(1), 15-24 (2004).

Elbeltagi, Emad
Distributed Scheduling Model for Infrastructure Networks. — Tarek Hegazy, Ahmed Elhakeem, and Emad Elbeltagi; 130(2), 160-7 (2004).
Dynamic Layout of Construction Temporary Facilities Considering Safety. — Emad Elbeltagi, Tarek Hegazy, and Adel Eldosouky; 130(4), 534-41 (2004).

Eldosouky, Adel
Dynamic Layout of Construction Temporary Facilities Considering Safety. — Emad Elbeltagi, Tarek Hegazy, and Adel Eldosouky; 130(4), 534-41 (2004).

Elhakeem, Ahmed
Distributed Scheduling Model for Infrastructure Networks. — Tarek Hegazy, Ahmed Elhakeem, and Emad Elbeltagi; 130(2), 160-7 (2004).

Elhassan, Ahmed
Closure to "Constructability Analysis in the Design Firm" by David Arditi, Ahmed Elhassan, and Y. Cengiz Toklu. — David Arditi, Ahmed Elhassan, and Y. Cengiz Toklu; 130(2), 302-4 (2004).

Fang, D. P.
Benchmarking Studies on Construction Safety Management in China. — D. P. Fang, X. Y. Huang, and Jimmie Hinze; 130(3), 424-32 (2004).

Fang, Dongping
Risks in Chinese Construction Market—Contractors' Perspective. — Dongping Fang, Mingen Li, Patrick Sik-wah Fong, and Liyin Shen; 130(6), 853-61 (2004).
Risk Assessment Model of Tendering for Chinese Building Projects. — Dongping Fang, Patrick Sik-wah Fong, and Mingen Li; 130(6), 862-8 (2004).

Farbarik, John J.
Discussion of "Quantitative Definition of Projects Impacted by Change Orders" by Awad S. Hanna, Richard Camlic, Pehr A. Peterson, and Erik V. Nordheim. — John J. Farbarik; 130(4), 610 (2004).

Fetsko, Michael
Environmental Management Systems and ISO 14001 Certification for Construction Firms. — Gwen Christini, Michael Fetsko, and Chris Hendrickson; 130(3), 330-6 (2004).

Fong, Patrick Sik-wah
Risks in Chinese Construction Market—Contractors' Perspective. — Dongping Fang, Mingen Li, Patrick Sik-wah Fong, and Liyin Shen; 130(6), 853-61 (2004).
Risk Assessment Model of Tendering for Chinese Building Projects. — Dongping Fang, Patrick Sik-wah Fong, and Mingen Li; 130(6), 862-8 (2004).

Ford, David N.
Managing Constructibility Reviews to Reduce Highway Project Durations. — David N. Ford, Stuart D. Anderson, Andrew J. Damron, Rodrigo de Las Casas, Nevzat Gokmen, and Steven T. Kuennen; 130(1), 33-42 (2004).

Gab-Allah, Ahmed A.
Finance-Based Scheduling of Construction Projects Using Integer Programming. — Ashraf M. Elazouni and Ahmed A. Gab-Allah; 130(1), 15-24 (2004).

Garvin, Michael J.
Empirical Study of Strategic Performance of Global Construction Firms. — Charles Y. J. Cheah, Michael J. Garvin, and John B. Miller; 130(6), 808-17 (2004).

Gibson, G. Edward, Jr.
Owner–Contractor Work Structures: Process Approach. — Stuart D. Anderson, Shekhar S. Patil, G. Edward Gibson, Jr., and George R. Sullivan; 130(5), 680-90 (2004).

Goh, Y. M.
Incident Causation Model for Improving Feedback of Safety Knowledge. — D. K. H. Chua and Y. M. Goh; 130(4), 542-51 (2004).

Gokhale, Sanjiv B.
Decision Support System for Microtunneling Applications. — Tae Hwan Chung, Dulcy M. Abraham, and Sanjiv B. Gokhale; 130(6), 835-43 (2004).

Gokmen, Nevzat
Managing Constructibility Reviews to Reduce Highway Project Durations. — David N. Ford, Stuart D. Anderson, Andrew J. Damron, Rodrigo de Las Casas, Nevzat Gokmen, and Steven T. Kuennen; 130(1), 33-42 (2004).

Goodrum, Paul M.
Long-Term Impact of Equipment Technology on Labor Productivity in the U.S. Construction Industry at the Activity Level. — Paul M. Goodrum and Carl T. Haas; 130(1), 124-33 (2004).
Hispanic and Non-Hispanic Wage Differentials: Implications for United States Construction Industry. — Paul M. Goodrum; 130(4), 552-9 (2004).

Gopal, Sajini
Cost-Benefit Model for the Construction of Tornado Shelters. — Timothy M. Whalen, Sajini Gopal, and Dulcy M. Abraham; 130(6), 772-9 (2004).

Gourc, Didier
Where Do We Stand with Fuzzy Project Scheduling? — Pierre Bonnal, Didier Gourc, and Germain Lacoste; 130(1), 114-23 (2004).

Gransberg, Douglas D.
Calculating Roller Requirements for Chip Seal Projects. — Douglas D. Gransberg, Ilker Karaca, and Sanjaya Senadheera; 130(3), 378-84 (2004).

Gunduz, Murat
Impact of Change Orders on Small Labor-Intensive Projects. — Awad S. Hanna and Murat Gunduz; 130(5), 726-33 (2004).

Haas, Carl T.
Position Error Modeling for Automated Construction Manipulators. — Yong-Kwon Cho, Carl T. Haas, S. V. Sreenivasan, and Katherine Liapi; 130(1), 50-8 (2004).
Long-Term Impact of Equipment Technology on Labor Productivity in the U.S. Construction Industry at the Activity Level. — Paul M. Goodrum and Carl T. Haas; 130(1), 124-33 (2004).

Haas, Ralph
Process and Case Illustration of Construction Innovation. — Abd El Halim Omar Abd El Halim and Ralph Haas; 130(4), 570-5 (2004).

Hadikusumo, B. H. W.
Capturing Safety Knowledge Using Design-for-Safety-Process Tool. — B. H. W. Hadikusumo and Steve Rowlinson; 130(2), 281-9 (2004).

Haksever, Cengiz
Flexible Model for Time/Cost Tradeoff Problem. — John Moussourakis and Cengiz Haksever; 130(3), 307-14 (2004).

Halpin, Daniel W.
Simulation as a Tool for Pile Productivity Assessment. — Tarek M. Zayed and Daniel W. Halpin; 130(3), 394-404 (2004).
Quantitative Assessment for Piles Productivity Factors. — Tarek M. Zayed and Daniel W. Halpin; 130(3), 405-14 (2004).
Process versus Data Oriented Techniques in Pile Construction Productivity Assessment. — Tarek M. Zayed and Daniel W. Halpin; 130(4), 490-9 (2004).

Hampson, Keith D.
Project Alliancing at National Museum of Australia—Collaborative Process. — Allan J. Hauck, Derek H. T. Walker, Keith D. Hampson, and Renaye J. Peters; 130(1), 143-52 (2004).

Han, Seung H.
Multicriteria Financial Portfolio Risk Management for International Projects. — Seung H. Han, James E. Diekmann, Young Lee, and Jong H. Ock; 130(3), 346-56 (2004).

Hanaki, Keisuke
Fuzzy Decision-Making Tool for Environmental Sustainable Buildings. — Seongwon Seo, Toshiya Aramaki, Yongwoo Hwang, and Keisuke Hanaki; 130(3), 415-23 (2004).

Hanna, Awad S.
Closure to "Quantitative Definition of Projects Impacted by Change Orders" by Awad S. Hanna, Richard Camlic, Pehr A. Peterson, and Erik V. Nordheim. — Awad S. Hanna; 130(4), 612-3 (2004).
Impact of Change Orders on Small Labor-Intensive Projects. — Awad S. Hanna and Murat Gunduz; 130(5), 726-33 (2004).
Cumulative Effect of Project Changes for Electrical and Mechanical Construction. — Awad S. Hanna, Richard Camlic, Pehr A. Peterson, and Min-Jae Lee; 130(6), 762-71 (2004).

Harris, Richard Anthony
United Kingdom Construction Claims: Views of Professionals. — Steve Scott and Richard Anthony Harris; 130(5), 734-41 (2004).

Hassanein, A.
Planning and Scheduling Highway Construction. — A. Hassanein and O. Moselhi; 130(5), 638-46 (2004).

Hassanein, Ahmed
Discussion of "Network Creation and Development for Repetitive-Unit Projects" by Kyoo Jin Yi, Hyun-Soo Lee, and Yoon Ki Choi. — Osama Moselhi and Ahmed Hassanein; 130(4), 613-4 (2004).

Hastak, M.
Production Process for Manufactured Housing. — O. Senghore, M. Hastak, T. S. Abdelhamid, A. AbuHammad, and M. G. Syal; 130(5), 708-18 (2004).

Hauck, Allan J.
Project Alliancing at National Museum of Australia—Collaborative Process. — Allan J. Hauck, Derek H. T. Walker, Keith D. Hampson, and Renaye J. Peters; 130(1), 143-52 (2004).

Hegazy, Tarek
Distributed Scheduling Model for Infrastructure Networks. — Tarek Hegazy, Ahmed Elhakeem, and Emad Elbeltagi; 130(2), 160-7 (2004).
Dynamic Layout of Construction Temporary Facilities Considering Safety. — Emad Elbeltagi, Tarek Hegazy, and Adel Eldosouky; 130(4), 534-41 (2004).

Hendrickson, Chris
Environmental Management Systems and ISO 14001 Certification for Construction Firms. — Gwen Christini, Michael Fetsko, and Chris Hendrickson; 130(3), 330-6 (2004).

Hershauer, James C.
Strategic Positioning of Inventory to Match Demand in a Capital Projects Supply Chain. — Kenneth D. Walsh, James C. Hershauer, Iris D. Tommelein, and Tobi A. Walsh; 130(6), 818-26 (2004).

Hettiarachchi, Chamil H.
NJTxtr—A Computer Program Based on LASER to Monitor Asphalt Segregation. — Geoffrey M. Rowe, Jay N. Meegoda, Andris Jumikis, Mark J. Sharrock, Nishantha Bandara, and Chamil H. Hettiarachchi; 130(6), 924-34 (2004).

Hinze, Jimmie
Benchmarking Studies on Construction Safety Management in China. — D. P. Fang, X. Y. Huang, and Jimmie Hinze; 130(3), 424-32 (2004).

Ho, Kathy S. K.
Exploring Critical Success Factors for Partnering in Construction Projects. — Albert P. C. Chan, Daniel W. M. Chan, Y. H. Chiang, B. S. Tang, Edwin H. W. Chan, and Kathy S. K. Ho; 130(2), 188-98 (2004).

Ho, S. Ping
Analytical Model for Analyzing Construction Claims and Opportunistic Bidding. — S. Ping Ho and Liang Y. Liu; 130(1), 94-104 (2004).

Horman, Michael J.
Closure to "Reducing Variability to Improve Performance as a Lean Construction Principle" by H. Randolph Thomas, Michael J. Horman, Ubiraci Espinelli Lemes de Souza, and Ivica Zavřski. — H. Randolph Thomas, Michael J. Horman, Ubiraci Espinelli Lemes de Souza, and Ivica Završki; 130(2), 300-1 (2004).
Symbiotic Crew Relationships and Labor Flow. — H. Randolph Thomas, Michael J. Horman, and Ubiraci Espinelli Lemes de Souza; 130(6), 908-17 (2004).

Howell, Gregory A.
Discussion of "Reducing Variability to Improve Performance as a Lean Construction Principle" by H. Randolph Thomas, Michael J. Horman, Ubiraci Espinelli Lemes de Souza, and Ivica Zavřski. — Gregory A. Howell, Glenn Ballard, Iris D. Tommelein, and Lauri Koskela; 130(2), 299-300 (2004).
Work Structuring to Achieve Integrated Product–Process Design. — Cynthia C. Y. Tsao, Iris D. Tommelein, Eric S. Swanlund, and Gregory A. Howell; 130(6), 780-9 (2004).

Huang, X. Y.
Benchmarking Studies on Construction Safety Management in China. — D. P. Fang, X. Y. Huang, and Jimmie Hinze; 130(3), 424-32 (2004).

Hui, Mok Sze
Implementing and Applying Six Sigma in Construction. — Low Sui Pheng and Mok Sze Hui; 130(4), 482-9 (2004).

Hwang, Yongwoo
Fuzzy Decision-Making Tool for Environmental Sustainable Buildings. — Seongwon Seo, Toshiya Aramaki, Yongwoo Hwang, and Keisuke Hanaki; 130(3), 415-23 (2004).

Ioannou, Photios G.
Discussion of "Comparison of Linear Scheduling Model and Repetitive Scheduling Method" by Kris G. Mattila and Amy Park. — Photios G. Ioannou and I-Tung Yang; 130(3), 461-3 (2004).

Jaafar, Mohd S.
Constructability Concepts in Kuala Selangor Cable-Stayed Bridge in Malaysia. — Mekdam A. Nima, Mohd R. Abdul-Kadir, Mohd S. Jaafar, and Riadh G. Alghulami; 130(3), 315-21 (2004).

Jahren, Charles T.
Call for Forum Articles. — Charles T. Jahren; 130(1), 1 (2004).

Jaselskis, Edward
Analysis of Trends in Construction Research: 1985–2002. — Osama Abudayyeh, Amber Dibert-DeYoung, and Edward Jaselskis; 130(3), 433-9 (2004).

Jaselskis, Edward J.
Editor's Note. — Edward J. Jaselskis; 130(1), 2-4 (2004).
Editor's Note. — Edward J. Jaselskis; 130(2), 158-9 (2004).
Potential Construction Applications for Thermoset Composite Scrap Material. — Jeffrey Stewart, R. Edward Minchin, Edward J. Jaselskis, Vinay Dayal, and Gary Smith; 130(2), 199-205 (2004).
Editor's Note. — Edward J. Jaselskis; 130(3), 306 (2004).
Editor's Note. — Edward J. Jaselskis; 130(4), 470-1 (2004).
Editor's Note. — Edward J. Jaselskis; 130(6), 760-1 (2004).

Jeong, Hyung Seok
Evaluation of an Emerging Market in Subsurface Utility Engineering. — Hyung Seok Jeong, Dulcy M. Abraham, and Jeffrey J. Lew; 130(2), 225-34 (2004).

Jumikis, Andris
NJTxtr—A Computer Program Based on LASER to Monitor Asphalt Segregation. — Geoffrey M. Rowe, Jay N. Meegoda, Andris Jumikis, Mark J. Sharrock, Nishantha Bandara, and Chamil H. Hettiarachchi; 130(6), 924-34 (2004).

Jung, Youngsoo
Flexible Work Breakdown Structure for Integrated Cost and Schedule Control. — Youngsoo Jung and Sungkwon Woo; 130(5), 616-25 (2004).

Kallantzis, Alexandros
Discussion of "Comparison of Linear Scheduling Model and Repetitive Scheduling Method" by Kris G. Mattila and Amy Park. — Alexandros Kallantzis and Sergios Lambropoulos; 130(3), 463-7 (2004).

Kangari, Roozbeh
Predicting Organizational Success within a Project-Based Joint Venture Alliance. — David N. Sillars and Roozbeh Kangari; 130(4), 500-8 (2004).

Kaplanoğlu, S. Burçin
Case Study: Izmit Domestic and Industrial Water Supply Build–Operate–Transfer Project. — H. Ali Şentürk, Gökhan Yazici, and S. Burçin Kaplanoğlu; 130(3), 449-54 (2004).

Karaca, Ilker
Calculating Roller Requirements for Chip Seal Projects. — Douglas D. Gransberg, Ilker Karaca, and Sanjaya Senadheera; 130(3), 378-84 (2004).

Kim, Sun-Kuk
Impact of Labor Factors on Workflow. — Hyun-Soo Lee, Jung-Ho Yu, and Sun-Kuk Kim; 130(6), 918-23 (2004).

Koksal, Almula
Predicting Construction Company Decline. — Almula Koksal and David Arditi; 130(6), 799-807 (2004).

Koskela, Lauri
Discussion of "Reducing Variability to Improve Performance as a Lean Construction Principle" by H. Randolph Thomas, Michael J. Horman, Ubiraci Espinelli Lemes de Souza, and Ivica Zavřski. — Gregory A. Howell, Glenn Ballard, Iris D. Tommelein, and Lauri Koskela; 130(2), 299-300 (2004).

Kuennen, Steven T.
Managing Constructibility Reviews to Reduce Highway Project Durations. — David N. Ford, Stuart D. Anderson, Andrew J. Damron, Rodrigo de Las Casas, Nevzat Gokmen, and Steven T. Kuennen; 130(1), 33-42 (2004).

Kumaraswamy, Mohan M.
Applying a Genetic Algorithm-Based Multiobjective Approach for Time-Cost Optimization. — Daisy X. M. Zheng, S. Thomas Ng, and Mohan M. Kumaraswamy; 130(2), 168-76 (2004).

Lacoste, Germain
Where Do We Stand with Fuzzy Project Scheduling? — Pierre Bonnal, Didier Gourc, and Germain Lacoste; 130(1), 114-23 (2004).

Lambropoulos, Sergios
Discussion of "Comparison of Linear Scheduling Model and Repetitive Scheduling Method" by Kris G. Mattila and Amy Park. — Alexandros Kallantzis and Sergios Lambropoulos; 130(3), 463-7 (2004).

Lee, G.
Process Model Perspectives on Management and Engineering Procedures in the Precast/Prestressed Concrete Industry. — R. Sacks, C. M. Eastman, and G. Lee; 130(2), 206-15 (2004).

Lee, Hyun-Soo
Impact of Labor Factors on Workflow. — Hyun-Soo Lee, Jung-Ho Yu, and Sun-Kuk Kim; 130(6), 918-23 (2004).

Lee, Min-Jae
Cumulative Effect of Project Changes for Electrical and Mechanical Construction. — Awad S. Hanna, Richard Camlic, Pehr A. Peterson, and Min-Jae Lee; 130(6), 762-71 (2004).

Lee, Sang-Hoon
Effective Practice Utilization Using Performance Prediction Software. — Sang-Hoon Lee, Stephen R. Thomas, and Richard L. Tucker; 130(4), 576-85 (2004).
Impacts of Design/Information Technology on Project Outcomes. — Stephen R. Thomas, Sang-Hoon Lee, John D. Spencer, Richard L. Tucker, and Robert E. Chapman; 130(4), 586-97 (2004).

Lee, Young
Multicriteria Financial Portfolio Risk Management for International Projects. — Seung H. Han, James E. Diekmann, Young Lee, and Jong H. Ock; 130(3), 346-56 (2004).

Leung, Nga-Na
Prototype Web-Based Construction Project Management System. — Swee-Lean Chan and Nga-Na Leung; 130(6), 935-43 (2004).

Lew, Jeffrey J.
Evaluation of an Emerging Market in Subsurface Utility Engineering. — Hyung Seok Jeong, Dulcy M. Abraham, and Jeffrey J. Lew; 130(2), 225-34 (2004).

Li, Heng
Development of a Practical Model of Partnering for Construction Projects. — Eddie W. L. Cheng and Heng Li; 130(6), 790-8 (2004).

Li, Jingru
Geographic Information System-Based Visual Simulation Methodology and Its Application in Concrete Dam Construction Processes. — Denghua Zhong, Jingru Li, Huirong Zhu, and Lingguang Song; 130(5), 742-50 (2004).

Li, Keith Y. K.
Management of Radon in Tunnel Drilling. — Keith Y. K. Li and Andy T. Chan; 130(5), 699-707 (2004).

Li, Mingen
Risks in Chinese Construction Market—Contractors' Perspective. — Dongping Fang, Mingen Li, Patrick Sik-wah Fong, and Liyin Shen; 130(6), 853-61 (2004).
Risk Assessment Model of Tendering for Chinese Building Projects. — Dongping Fang, Patrick Sik-wah Fong, and Mingen Li; 130(6), 862-8 (2004).

Li, Q. M.
Awarding Construction Contracts on Multicriteria Basis in China. — L. Y. Shen, Q. M. Li, D. Drew, and Q. P. Shen; 130(3), 385-93 (2004).

Liapi, Katherine
Position Error Modeling for Automated Construction Manipulators. — Yong-Kwon Cho, Carl T. Haas, S. V. Sreenivasan, and Katherine Liapi; 130(1), 50-8 (2004).

Ling, Florence Yean Yng
Predicting Performance of Design-Build and Design-Bid-Build Projects. — Florence Yean Yng Ling, Swee Lean Chan, Edwin Chong, and Lee Ping Ee; 130(1), 75-83 (2004).

Lingard, Helen
Work and Family Sources of Burnout in the Australian Engineering Profession: Comparison of Respondents in Dual- and Single-Earner Couples, Parents, and Nonparents. — Helen Lingard; 130(2), 290-8 (2004).

Liu, Jinming
Project Time-Cost Trade-Off Optimization by Maximal Flow Theory. — Jinming Liu and Fred Rahbar; 130(4), 607-9 (2004).

Liu, Liang Y.
Analytical Model for Analyzing Construction Claims and Opportunistic Bidding. — S. Ping Ho and Liang Y. Liu; 130(1), 94-104 (2004).

Love, Peter E. D.
Hybrid Life-Cycle Inventory for Road Construction and Use. — Graham J. Treloar, Peter E. D. Love, and Robert H. Crawford; 130(1), 43-9 (2004).

Lu, Ming
Establish Concrete Placing Rates Using Quality Control Records from Hong Kong Building Construction Projects. — Ming Lu and Michael Anson; 130(2), 216-24 (2004).

Marzouk, Mohamed
Multiobjective Optimization of Earthmoving Operations. — Mohamed Marzouk and Osama Moselhi; 130(1), 105-13 (2004).
Fuzzy Clustering Model for Estimating Haulers' Travel Time. — Mohamed Marzouk and Osama Moselhi; 130(6), 878-86 (2004).

Masat, Jan
Potential of Total Cycle Time Compression in Construction: Focus on Program Development and Design. — Ralph Barker, Paul Childerhouse, Mohamed Naim, Jan Masat, and Derek Wilson; 130(2), 177-87 (2004).

Mata, Fernando
Probabilistic Forecasting of Project Performance Using Stochastic S Curves. — Gabriel A. Barraza, W. Edward Back, and Fernando Mata; 130(1), 25-32 (2004).

Mattila, Kris G.
Accuracy of Highway Contractor's Schedules. — Kris G. Mattila and Michael R. Bowman; 130(5), 647-55 (2004).
Binary Resource Leveling Model: Activity Splitting Allowed. — Jaeho Son and Kris G. Mattila; 130(6), 887-94 (2004).

Meegoda, Jay N.
NJTxtr—A Computer Program Based on LASER to Monitor Asphalt Segregation. — Geoffrey M. Rowe, Jay N. Meegoda, Andris Jumikis, Mark J. Sharrock, Nishantha Bandara, and Chamil H. Hettiarachchi; 130(6), 924-34 (2004).

Miller, John B.
Empirical Study of Strategic Performance of Global Construction Firms. — Charles Y. J. Cheah, Michael J. Garvin, and John B. Miller; 130(6), 808-17 (2004).

Miller, Kevin R.
Project Buyout. — Darin C. Zwick and Kevin R. Miller; 130(2), 245-8 (2004).

Minchin, R. Edward
Potential Construction Applications for Thermoset Composite Scrap Material. — Jeffrey Stewart, R. Edward Minchin, Edward J. Jaselskis, Vinay Dayal, and Gary Smith; 130(2), 199-205 (2004).

Minkarah, Issam
Resource Allocation for Concrete Batch Plant Operation: Case Study. — Tarek M. Zayed and Issam Minkarah; 130(4), 560-9 (2004).

Moselhi, O.
Planning and Scheduling Highway Construction. — A. Hassanein and O. Moselhi; 130(5), 638-46 (2004).

Moselhi, Osama
Multiobjective Optimization of Earthmoving Operations. — Mohamed Marzouk and Osama Moselhi; 130(1), 105-13 (2004).
Discussion of "Network Creation and Development for Repetitive-Unit Projects" by Kyoo Jin Yi, Hyun-Soo Lee, and Yoon Ki Choi. — Osama Moselhi and Ahmed Hassanein; 130(4), 613-4 (2004).
Fuzzy Clustering Model for Estimating Haulers' Travel Time. — Mohamed Marzouk and Osama Moselhi; 130(6), 878-86 (2004).

Moussourakis, John
Flexible Model for Time/Cost Tradeoff Problem. — John Moussourakis and Cengiz Haksever; 130(3), 307-14 (2004).

Naim, Mohamed
Potential of Total Cycle Time Compression in Construction: Focus on Program Development and Design. — Ralph Barker, Paul Childerhouse, Mohamed Naim, Jan Masat, and Derek Wilson; 130(2), 177-87 (2004).

Ng, S. Thomas
Applying a Genetic Algorithm-Based Multiobjective Approach for Time-Cost Optimization. — Daisy X. M. Zheng, S. Thomas Ng, and Mohan M. Kumaraswamy; 130(2), 168-76 (2004).

Nima, Mekdam A.
Discussion of "Constructability Analysis in the Design Firm" by David Arditi, Ahmed Elhassan, and Y. Cengiz Toklu. — Mekdam A. Nima; 130(2), 301-2 (2004).
Constructability Concepts in Kuala Selangor Cable-Stayed Bridge in Malaysia. — Mekdam A. Nima, Mohd R. Abdul-Kadir, Mohd S. Jaafar, and Riadh G. Alghulami; 130(3), 315-21 (2004).

Ock, Jong H.
Multicriteria Financial Portfolio Risk Management for International Projects. — Seung H. Han, James E. Diekmann, Young Lee, and Jong H. Ock; 130(3), 346-56 (2004).

O'Connor, James T.
Project Performance versus Use of Technologies at Project and Phase Levels. — James T. O'Connor and Li-Ren Yang; 130(3), 322-9 (2004).

Ossman, George, III
Discussion of "Quantitative Definition of Projects Impacted by Change Orders" by Awad S. Hanna, Richard Camlic, Pehr A. Peterson, and Erik V. Nordheim. — George Ossman, III; 130(4), 611-2 (2004).

Park, Moonseo
Reliability Buffering for Construction Projects. — Moonseo Park and Feniosky Peña-Mora; 130(5), 626-37 (2004).

Patil, Shekhar S.
Owner–Contractor Work Structures: Process Approach. — Stuart D. Anderson, Shekhar S. Patil, G. Edward Gibson, Jr., and George R. Sullivan; 130(5), 680-90 (2004).

Peña-Mora, Feniosky
Reliability Buffering for Construction Projects. — Moonseo Park and Feniosky Peña-Mora; 130(5), 626-37 (2004).

Peng, Jui-Lin
Structural Modeling and Design Considerations for Double-Layer Shoring Systems. — Jui-Lin Peng; 130(3), 368-77 (2004).

Perelstein, Eldad
Decision Support Model for the Allocation of Resources in Rehabilitation Projects. — Igal M. Shohet and Eldad Perelstein; 130(2), 249-57 (2004).

Peters, Renaye J.
Project Alliancing at National Museum of Australia—Collaborative Process. — Allan J. Hauck, Derek H. T. Walker, Keith D. Hampson, and Renaye J. Peters; 130(1), 143-52 (2004).

Peterson, Pehr A.
Cumulative Effect of Project Changes for Electrical and Mechanical Construction. — Awad S. Hanna, Richard Camlic, Pehr A. Peterson, and Min-Jae Lee; 130(6), 762-71 (2004).

Pheng, Low Sui
Implementing and Applying Six Sigma in Construction. — Low Sui Pheng and Mok Sze Hui; 130(4), 482-9 (2004).

Pietroforte, Roberto
ASCE Journal of Construction Engineering and Management: Review of the Years 1983–2000. — Roberto Pietroforte and Tomi P. Stefani; 130(3), 440-8 (2004).

Rahbar, Fred
Project Time-Cost Trade-Off Optimization by Maximal Flow Theory. — Jinming Liu and Fred Rahbar; 130(4), 607-9 (2004).

Ran, Bin
Method to Determine Minimum Contract Bid for $A+B+I/D$ Highway Projects. — Jin-Fang Shr, Bin Ran, and Chiu Wei Sung; 130(4), 509-16 (2004).

Rowe, Geoffrey M.
NJTxtr—A Computer Program Based on LASER to Monitor Asphalt Segregation. — Geoffrey M. Rowe, Jay N. Meegoda, Andris Jumikis, Mark J. Sharrock, Nishantha Bandara, and Chamil H. Hettiarachchi; 130(6), 924-34 (2004).

Rowlinson, Steve
Capturing Safety Knowledge Using Design-for-Safety-Process Tool. — B. H. W. Hadikusumo and Steve Rowlinson; 130(2), 281-9 (2004).

Sacks, R.
Process Model Perspectives on Management and Engineering Procedures in the Precast/Prestressed Concrete Industry. — R. Sacks, C. M. Eastman, and G. Lee; 130(2), 206-15 (2004).

Sacks, Rafael
Practical Multifactor Approach to Evaluating Risk of Investment in Engineering Projects. — Abraham Warszawski and Rafael Sacks; 130(3), 357-67 (2004).

Schexnayder, Cliff J.
Transportation Agency Use of Owner-Controlled Insurance Programs. — Cliff J. Schexnayder, Sandra L. Weber, and Scott A. David; 130(4), 517-24 (2004).

Scott, David
Factors Affecting the Success of a Construction Project. — Albert P. C. Chan, David Scott, and Ada P. L. Chan; 130(1), 153-5 (2004).

Scott, Steve
United Kingdom Construction Claims: Views of Professionals. — Steve Scott and Richard Anthony Harris; 130(5), 734-41 (2004).

Senadheera, Sanjaya
Calculating Roller Requirements for Chip Seal Projects. — Douglas D. Gransberg, Ilker Karaca, and Sanjaya Senadheera; 130(3), 378-84 (2004).

Senghore, O.
Production Process for Manufactured Housing. — O. Senghore, M. Hastak, T. S. Abdelhamid, A. AbuHammad, and M. G. Syal; 130(5), 708-18 (2004).

Şentürk, H. Ali
Case Study: Izmit Domestic and Industrial Water Supply Build–Operate–Transfer Project. — H. Ali Şentürk, Gökhan Yazici, and S. Burçin Kaplanoğlu; 130(3), 449-54 (2004).

Seo, J. W.
Risk Assessment Methodology for Underground Construction Projects. — Hyun-Ho Choi, Hyo-Nam Cho, and J. W. Seo; 130(2), 258-72 (2004).

Seo, Seongwon
Fuzzy Decision-Making Tool for Environmental Sustainable Buildings. — Seongwon Seo, Toshiya Aramaki, Yongwoo Hwang, and Keisuke Hanaki; 130(3), 415-23 (2004).

Shapira, Aviad
Work Inputs and Related Economic Aspects of Multitier Shoring Towers. — Aviad Shapira; 130(1), 134-42 (2004).

Sharrock, Mark J.
NJTxtr—A Computer Program Based on LASER to Monitor Asphalt Segregation. — Geoffrey M. Rowe, Jay N. Meegoda, Andris Jumikis, Mark J. Sharrock, Nishantha Bandara, and Chamil H. Hettiarachchi; 130(6), 924-34 (2004).

Shen, L. Y.
Awarding Construction Contracts on Multicriteria Basis in China. — L. Y. Shen, Q. M. Li, D. Drew, and Q. P. Shen; 130(3), 385-93 (2004).
Mapping Approach for Examining Waste Management on Construction Sites. — L. Y. Shen, Vivian W. Y. Tam, C. M. Tam, and D. Drew; 130(4), 472-81 (2004).

Shen, Liyin
Risks in Chinese Construction Market—Contractors' Perspective. — Dongping Fang, Mingen Li, Patrick Sik-wah Fong, and Liyin Shen; 130(6), 853-61 (2004).

Shen, Q. P.
Awarding Construction Contracts on Multicriteria Basis in China. — L. Y. Shen, Q. M. Li, D. Drew, and Q. P. Shen; 130(3), 385-93 (2004).

Shohet, Igal M.
Decision Support Model for the Allocation of Resources in Rehabilitation Projects. — Igal M. Shohet and Eldad Perelstein; 130(2), 249-57 (2004).

Shr, Jin-Fang
Setting Maximum Incentive for Incentive/Disincentive Contracts for Highway Projects. — Jin-Fang Shr and Wei Tong Chen; 130(1), 84-93 (2004).
Method to Determine Minimum Contract Bid for $A+B+I/D$ Highway Projects. — Jin-Fang Shr, Bin Ran, and Chiu Wei Sung; 130(4), 509-16 (2004).

Sillars, David N.
Predicting Organizational Success within a Project-Based Joint Venture Alliance. — David N. Sillars and Roozbeh Kangari; 130(4), 500-8 (2004).

Smith, Gary
Potential Construction Applications for Thermoset Composite Scrap Material. — Jeffrey Stewart, R. Edward Minchin, Edward J. Jaselskis, Vinay Dayal, and Gary Smith; 130(2), 199-205 (2004).

Son, Jaeho
Binary Resource Leveling Model: Activity Splitting Allowed. — Jaeho Son and Kris G. Mattila; 130(6), 887-94 (2004).

Song, Lingguang
Geographic Information System-Based Visual Simulation Methodology and Its Application in Concrete Dam Construction Processes. — Denghua Zhong, Jingru Li, Huirong Zhu, and Lingguang Song; 130(5), 742-50 (2004).

Spencer, John D.
Impacts of Design/Information Technology on Project Outcomes. — Stephen R. Thomas, Sang-Hoon Lee, John D. Spencer, Richard L. Tucker, and Robert E. Chapman; 130(4), 586-97 (2004).

Sreenivasan, S. V.
Position Error Modeling for Automated Construction Manipulators. — Yong-Kwon Cho, Carl T. Haas, S. V. Sreenivasan, and Katherine Liapi; 130(1), 50-8 (2004).

Stefani, Tomi P.
ASCE Journal of Construction Engineering and Management: Review of the Years 1983–2000. — Roberto Pietroforte and Tomi P. Stefani; 130(3), 440-8 (2004).

Stewart, Jeffrey
Potential Construction Applications for Thermoset Composite Scrap Material. — Jeffrey Stewart, R. Edward Minchin, Edward J. Jaselskis, Vinay Dayal, and Gary Smith; 130(2), 199-205 (2004).

Suen, Henry
Construction Negotiation Online. — Sai On Cheung, Kenneth T. W. Yiu, and Henry Suen; 130(6), 844-52 (2004).

Sullivan, George R.
Owner–Contractor Work Structures: Process Approach. — Stuart D. Anderson, Shekhar S. Patil, G. Edward Gibson, Jr., and George R. Sullivan; 130(5), 680-90 (2004).

Sung, Chiu Wei
Method to Determine Minimum Contract Bid for $A+B+I/D$ Highway Projects. — Jin-Fang Shr, Bin Ran, and Chiu Wei Sung; 130(4), 509-16 (2004).

Swanlund, Eric S.
Work Structuring to Achieve Integrated Product–Process Design. — Cynthia C. Y. Tsao, Iris D. Tommelein, Eric S. Swanlund, and Gregory A. Howell; 130(6), 780-9 (2004).

Syal, M. G.
Production Process for Manufactured Housing. — O. Senghore, M. Hastak, T. S. Abdelhamid, A. AbuHammad, and M. G. Syal; 130(5), 708-18 (2004).

Tam, C. M.
Mapping Approach for Examining Waste Management on Construction Sites. — L. Y. Shen, Vivian W. Y. Tam, C. M. Tam, and D. Drew; 130(4), 472-81 (2004).
Selection of Concrete Pump Using the Superiority and Inferiority Ranking Method. — C. M. Tam, Thomas K. L. Tong, and Y. W. Wong; 130(6), 827-34 (2004).

Tam, Vivian W. Y.
Mapping Approach for Examining Waste Management on Construction Sites. — L. Y. Shen, Vivian W. Y. Tam, C. M. Tam, and D. Drew; 130(4), 472-81 (2004).

Tang, B. S.
Exploring Critical Success Factors for Partnering in Construction Projects. — Albert P. C. Chan, Daniel W. M. Chan, Y. H. Chiang, B. S. Tang, Edwin H. W. Chan, and Kathy S. K. Ho; 130(2), 188-98 (2004).

Thomas, H. Randolph
Closure to "Reducing Variability to Improve Performance as a Lean Construction Principle" by H. Randolph Thomas, Michael J. Horman, Ubiraci Espinelli Lemes de Souza, and Ivica Završki. — H. Randolph Thomas, Michael J. Horman, Ubiraci Espinelli Lemes de Souza, and Ivica Završki; 130(2), 300-1 (2004).
Symbiotic Crew Relationships and Labor Flow. — H. Randolph Thomas, Michael J. Horman, and Ubiraci Espinelli Lemes de Souza; 130(6), 908-17 (2004).

Thomas, Stephen R.
Effective Practice Utilization Using Performance Prediction Software. — Sang-Hoon Lee, Stephen R. Thomas, and Richard L. Tucker; 130(4), 576-85 (2004).
Impacts of Design/Information Technology on Project Outcomes. — Stephen R. Thomas, Sang-Hoon Lee, John D. Spencer, Richard L. Tucker, and Robert E. Chapman; 130(4), 586-97 (2004).

Tian, Qian
Reasons Underlying a Mandatory High Penalty Construction Contract Bonding System. — Xiaomei Deng, Shizhao Ding, and Qian Tian; 130(1), 67-74 (2004).

Toklu, Y. Cengiz
Closure to "Constructability Analysis in the Design Firm" by David Arditi, Ahmed Elhassan, and Y. Cengiz Toklu. — David Arditi, Ahmed Elhassan, and Y. Cengiz Toklu; 130(2), 302-4 (2004).

Tommelein, Iris D.
Discussion of "Reducing Variability to Improve Performance as a Lean Construction Principle" by H. Randolph Thomas, Michael J. Horman, Ubiraci Espinelli Lemes de Souza, and Ivica Završki. — Gregory A. Howell, Glenn Ballard, Iris D. Tommelein, and Lauri Koskela; 130(2), 299-300 (2004).
Work Structuring to Achieve Integrated Product–Process Design. — Cynthia C. Y. Tsao, Iris D. Tommelein, Eric S. Swanlund, and Gregory A. Howell; 130(6), 780-9 (2004).
Strategic Positioning of Inventory to Match Demand in a Capital Projects Supply Chain. — Kenneth D. Walsh, James C. Hershauer, Iris D. Tommelein, and Tobi A. Walsh; 130(6), 818-26 (2004).

Tong, Thomas K. L.
Selection of Concrete Pump Using the Superiority and Inferiority Ranking Method. — C. M. Tam, Thomas K. L. Tong, and Y. W. Wong; 130(6), 827-34 (2004).

Touran, Ali
Analysis of the United States Department of Transportation Prompt Pay Provisions. — Ali Touran, Metin Atgun, and Ittiphol Bhurisith; 130(5), 719-25 (2004).

Treloar, Graham J.
Hybrid Life-Cycle Inventory for Road Construction and Use. — Graham J. Treloar, Peter E. D. Love, and Robert H. Crawford; 130(1), 43-9 (2004).

Trigunarsyah, Bambang
Constructability Practices among Construction Contractors in Indonesia. — Bambang Trigunarsyah; 130(5), 656-69 (2004).

Tsao, Cynthia C. Y.
Work Structuring to Achieve Integrated Product–Process Design. — Cynthia C. Y. Tsao, Iris D. Tommelein, Eric S. Swanlund, and Gregory A. Howell; 130(6), 780-9 (2004).

Tserng, H. P.
Module-Based Construction Schedule Administration for Public Infrastructure Agencies. — R. J. Dzeng, W. C. Wang, and H. P. Tserng; 130(1), 5-14 (2004).

Tucker, Richard L.
Effective Practice Utilization Using Performance Prediction Software. — Sang-Hoon Lee, Stephen R. Thomas, and Richard L. Tucker; 130(4), 576-85 (2004).
Impacts of Design/Information Technology on Project Outcomes. — Stephen R. Thomas, Sang-Hoon Lee, John D. Spencer, Richard L. Tucker, and Robert E. Chapman; 130(4), 586-97 (2004).

Walker, Derek H. T.
Project Alliancing at National Museum of Australia—Collaborative Process. — Allan J. Hauck, Derek H. T. Walker, Keith D. Hampson, and Renaye J. Peters; 130(1), 143-52 (2004).

Walsh, Kenneth D.
Strategic Positioning of Inventory to Match Demand in a Capital Projects Supply Chain. — Kenneth D. Walsh, James C. Hershauer, Iris D. Tommelein, and Tobi A. Walsh; 130(6), 818-26 (2004).

Walsh, Tobi A.
Strategic Positioning of Inventory to Match Demand in a Capital Projects Supply Chain. — Kenneth D. Walsh, James C. Hershauer, Iris D. Tommelein, and Tobi A. Walsh; 130(6), 818-26 (2004).

Wang, W. C.
Module-Based Construction Schedule Administration for Public Infrastructure Agencies. — R. J. Dzeng, W. C. Wang, and H. P. Tserng; 130(1), 5-14 (2004).

Wang, Wei-Chih
Electronic-Based Procedure for Managing Unbalanced Bids. — Wei-Chih Wang; 130(3), 455-60 (2004).

Warszawski, Abraham
Practical Multifactor Approach to Evaluating Risk of Investment in Engineering Projects. — Abraham Warszawski and Rafael Sacks; 130(3), 357-67 (2004).

Weber, Sandra L.
Transportation Agency Use of Owner-Controlled Insurance Programs. — Cliff J. Schexnayder, Sandra L. Weber, and Scott A. David; 130(4), 517-24 (2004).

Whalen, Timothy M.
Cost-Benefit Model for the Construction of Tornado Shelters. — Timothy M. Whalen, Sajini Gopal, and Dulcy M. Abraham; 130(6), 772-9 (2004).

Wilson, Derek
Potential of Total Cycle Time Compression in Construction: Focus on Program Development and Design. — Ralph Barker, Paul Childerhouse, Mohamed Naim, Jan Masat, and Derek Wilson; 130(2), 177-87 (2004).

Wong, Chee Hong
Contractor Performance Prediction Model for the United Kingdom Construction Contractor: Study of Logistic Regression Approach. — Chee Hong Wong; 130(5), 691-8 (2004).

Wong, Y. W.
Selection of Concrete Pump Using the Superiority and Inferiority Ranking Method. — C. M. Tam, Thomas K. L. Tong, and Y. W. Wong; 130(6), 827-34 (2004).

Woo, Sungkwon
Flexible Work Breakdown Structure for Integrated Cost and Schedule Control. — Youngsoo Jung and Sungkwon Woo; 130(5), 616-25 (2004).

Yang, I-Tung
Discussion of "Comparison of Linear Scheduling Model and Repetitive Scheduling Method" by Kris G. Mattila and Amy Park. — Photios G. Ioannou and I-Tung Yang; 130(3), 461-3 (2004).

Yang, Li-Ren
Project Performance versus Use of Technologies at Project and Phase Levels. — James T. O'Connor and Li-Ren Yang; 130(3), 322-9 (2004).

Yazici, Gökhan
Case Study: Izmit Domestic and Industrial Water Supply Build–Operate–Transfer Project. — H. Ali Şentürk, Gökhan Yazici, and S. Burçin Kaplanoğlu; 130(3), 449-54 (2004).

Yiu, Kenneth T. W.
Construction Negotiation Online. — Sai On Cheung, Kenneth T. W. Yiu, and Henry Suen; 130(6), 844-52 (2004).

Yu, Jung-Ho
Impact of Labor Factors on Workflow. — Hyun-Soo Lee, Jung-Ho Yu, and Sun-Kuk Kim; 130(6), 918-23 (2004).

Završki, Ivica
Closure to "Reducing Variability to Improve Performance as a Lean Construction Principle" by H. Randolph Thomas, Michael J. Horman, Ubiraci Espinelli Lemes de Souza, and Ivica Završki. — H. Randolph Thomas, Michael J. Horman, Ubiraci Espinelli Lemes de Souza, and Ivica Završki; 130(2), 300-1 (2004).

Zayed, Tarek M.
Simulation as a Tool for Pile Productivity Assessment. — Tarek M. Zayed and Daniel W. Halpin; 130(3), 394-404 (2004).
Quantitative Assessment for Piles Productivity Factors. — Tarek M. Zayed and Daniel W. Halpin; 130(3), 405-14 (2004).
Process versus Data Oriented Techniques in Pile Construction Productivity Assessment. — Tarek M. Zayed and Daniel W. Halpin; 130(4), 490-9 (2004).
Resource Allocation for Concrete Batch Plant Operation: Case Study. — Tarek M. Zayed and Issam Minkarah; 130(4), 560-9 (2004).

Zhang, J. P.
Four-Dimensional Visualization of Construction Scheduling and Site Utilization. — K. W. Chau, M. Anson, and J. P. Zhang; 130(4), 598-606 (2004).

Zhang, Xueqing
Concessionaire Selection: Methods and Criteria. — Xueqing Zhang; 130(2), 235-44 (2004).
Improving Concessionaire Selection Protocols in Public/Private Partnered Infrastructure Projects. — Xueqing Zhang; 130(5), 670-9 (2004).

Zheng, Daisy X. M.
Applying a Genetic Algorithm-Based Multiobjective Approach for Time-Cost Optimization. — Daisy X. M. Zheng, S. Thomas Ng, and Mohan M. Kumaraswamy; 130(2), 168-76 (2004).

Zhong, Denghua
Geographic Information System-Based Visual Simulation Methodology and Its Application in Concrete Dam Construction Processes. — Denghua Zhong, Jingru Li, Huirong Zhu, and Lingguang Song; 130(5), 742-50 (2004).

Zhu, Huirong
Geographic Information System-Based Visual Simulation Methodology and Its Application in Concrete Dam Construction Processes. — Denghua Zhong, Jingru Li, Huirong Zhu, and Lingguang Song; 130(5), 742-50 (2004).

Zwick, Darin C.
Project Buyout. — Darin C. Zwick and Kevin R. Miller; 130(2), 245-8 (2004).